Belden

Industrial Access Point

High-performance WLAN for industrial automation and warehousing & logistics

Product Bulletin

Belden's Industrial Access Point delivers high-capacity, low-latency WLAN with dual-band concurrent 5 GHz/6 GHz support and advanced Wi-Fi 7 performance—ideal for robotics and smart factory automation.

- **Maximize flexibility** with the new 6 GHz channels that provide 10X more capacity than 5 GHz, higher radio quality and easier access to exclusive channels.

- **Support legacy migration** with dual-band concurrent (at the same time) design with 5 GHz to support older equipment and 6 GHz to expand capacity and add newer devices.

- **Reduce total cost of ownership** with an internal 100° sector antenna design that streamlines installation and push-pull connectors for fast, watertight connections.

Key Features

- Wi-Fi 7, 2 × 2 MIMO
  - » **Variant 1:** External antenna, 5 GHz only, push-pull QLS
  - » **Varriant 2*:** Internal antenna, 5 and 6 GHz at the same time
- 5 GHz and 6 GHz bands
  - » Dual band concurrent: both bands at the same time
- 1 Gbps Ethernet, M12
- 9-36 V DC power or PoE+ powered
- Relay for switching up to 60 W
- IP65 waterproof for indoor use

Belden's Industrial Access Point enables high-speed, low-latency wireless connectivity across complex industrial environments, supporting Wi-Fi 7 and dual-concurrent 5 GHz/6 GHz for reliable, scalable communication to unlock new possibilities.

* Variant 2 available in Q1 2026

Your Benefits

Belden's Industrial Access Point with 6 GHz support offers up to 60 interference-free channels—10× more than 5 GHz—enabling deterministic, low-latency wireless for safety-critical applications such as robotics, automation and logistics. This industrial-grade device features dual-concurrent 5 GHz/6 GHz operation that supports legacy and new devices and helps disparate systems work in harmony.

With the access point, you get fast roaming that ensures seamless connections and minimal downtime. Built-in diagnostics and expert guidance help overcome Wi-Fi network congestion to deliver high-performance, future-ready industrial connectivity.
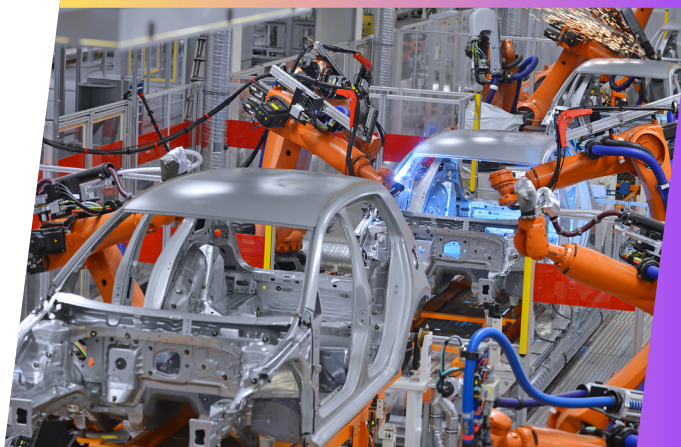
Applications

Belden's Industrial Access Point powers the shift to autonomous operations in complex manufacturing and warehousing and logistics environments. With revolutionary 6 GHz support, it boosts capacity from 500 to 5,000 robots per facility—ideal for high-density automation. Fast, interference-free roaming ensures seamless performance across the factory or warehouse floor. With the internal sector antenna, optimal targeted coverage can be achieved even with wall-mounting compared to traditional ceiling installations.

Purpose-built for industrial demands, these access points deliver the reliability, scalability and real-time communication needed to drive next-generation efficiency. Pairing with Belden's ProLinx Edge Mini (ELXM), a fast-roaming client device for mobile applications, delivers a complete connection solution.

Markets

Optimized for material handling and discrete manufacturing, Belden's Industrial Access Points meet the needs of high-density, high-mobility environments. Developed in accordance with Belden's Secure Development Lifecycle and compliant with Federal Communications Commission (FCC) and European Telecommunications Standards Institute (ETSI) requirements, these access points provide reliable, industrial-grade performance in demanding conditions.

Belden Industrial Access Point - IGX

IGX with integrated sector antenna

IGX with external QLS watertight antenna

Technical Information

Product Description

Type	Industrial Access Point - IGX
Description	Belden Wireless Industrial Access Point for Infrastructure WLAN with Wi-Fi 7. The rugged water-tight design is used for indoor deployments in Warehouses and Factories. Dual-band operation in 5 GHz and 6 GHz allows for maximum capacity and backward-compatibility in difficult WLAN applications with fast roaming.
Port Type and Quantity	2 × 2 MIMO WLAN on 5 GHz and 6 GHz at the same time; 1× M12 (X-Coded) Gigabit Ethernet (powered by PoE); 1× M12 (L-Coded) Power (24 V DC) and Relay Output

Radio Technology (WLAN)

Radio Standard	IEEE 802.11be, ax, n WLAN interface; 2 x 2 MIMO
Antenna Connector	External Antenna Variant: 2 × QLS (female, QMA-compatible); Internal Antenna Variant: Internal 2 × 2 MIMO 100° Sector Antenna
Frequency Band	5 GHz and 6 GHz WLAN bands (depending on regulatory region and antenna variant)
Radio Topology	WLAN Access Point supporting fast roaming 802.11r/k/v
Encryption	WPA2 and WPA3 in both Private and Enterprise modes

Interfaces

Ethernet	M12, X-coded, 10/100/1000 Mbit/s
Power	M12, L-coded, combined with Relay Output (up to 2 A/60 W)

Power Requirements

Operating Voltage	9-36 V DC over Power; PoE+ over Ethernet

Ambient Conditions

Operation Temperature	-20 °C to +65 °C
Storage/Transport Temp.	-40 °C to +75 °C
Environment	Indoor

Mechanical Construction

Dimensions (W x H x D)	200 × 135 × 40 mm
Mounting	Wall mounting
Protection Class	IP65

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.belden.com

Belden Industrial Access Point - IGX

IGX with integrated sector antenna

IGX with external QLS watertight antenna

Configurator

Characteristic	Attribute value	Description
Product	**IGX-**	Industrial Access Point
Regulatory Certifications	EU	Europe
	US	USA / Canada
	IN	India
	KR	Korea
	JP	Japan
	XA..XZ	Custom Multi-Country Groups
Wireless Module 1	71	WiFi 7 2 × 2 DBDC
Antenna Connector	Q	QLS (Female) Watertight (External)
	A	Integrated Sector Antenna
Ethernet	1M	1x Gigabit M12
Extension	D1	1x Relay
Power Supply	G	9-36 V DC, PoE+
Temperature Range	G	-20 °C to +65 °C

Industrial Access Point

The internal antenna variant (left) allows to easily cover the area in front of the device for 5 GHz and 6 GHz deployments.

The external antenna variant (right) allows for optimized 5 GHz deployments.